UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,677	08/13/2003	Fernando Cuervo	ALC 3414	6127

76614   7590   11/25/2009

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ART UNIT	PAPER NUMBER
2442	

NOTIFICATION DATE	DELIVERY MODE
11/25/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6,8,9,11-13 and 17-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6,8,9,11-13 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 1, 2, 6, 8, 9, 11-13, and 17-20 remain pending in the application. Claims 1, 9, 19, and 20 are currently amended. Claims 3-5, 7, 10, and 14-16 have been canceled. No new claims have been added.

Response to Arguments

2.   With regard to applicants' remarks dated July 22, 2009:

Regarding the rejection of claims 1, 6, 9 under 35 U.S.C. 102(e), applicant's arguments have been fully considered but they are not persuasive.

At point 1), applicant argues at page 10 of remarks that *"even if one were to assume that a PEP might be linked to the block diagram of Fig. 3, an NRC would not initiate a dynamic trusted, policy association of a PEP with a PDP".*

In response to applicant's argument at point 1), it is noted that this argument amounts to a general allegation unsupported by any evidence that an NRC would not initiate a dynamic trusted, policy association of a PEP with a PDP even if one were to assume that a PEP might be linked to the block diagram of Fig. 3 of Marchand.

At point 2), applicant argues that *"such an association would not occur because Marchand clearly lacks a NRC".*

In response to applicant's argument at point 2), it is noted that the Office action clearly identified a Bandwidth Broker (BB) at Fig. 3 of Marchand as the claimed NRC.

Therefore, based on applicant's argument, since Marchand teaches a NRC, an association would occur.

At point 3), applicant argues that *"although the Office action alleges that an intra-domain interface functions as a PDP, this allegation contradicts line 18 of col. 5 in Marchand, where the BB functions as a PDP. This contradiction is evident on page 4 of the Office action, where the BB is misidentified as the NRC. Instead, it should be listed as the PDP"*.

In response to applicant's argument at point 3), it is noted that every element was properly identified. In particular, the BB is correctly identified as the NRC and the RPL is correctly identified as the intra-domain interface. Marchand also discloses that the BB functions as a PDP of that domain. Therefore, since the intra-domain interface is included in the BB and the BB functions as the PDP, the intra-domain interface also functions as the PDP. It is noted that the PDP is a logical entity. See col. 5 line 31 of Marchand. The claimed RPL also appears to be a logical entity since the RPL is just a layer. Therefore, it is well within the scope of the claim for the RPL to be implemented within the physical boundaries of the NRC. Marchand discloses analogous structure where the BB (mapped to the NRC) being a physical element includes logical elements such as the intra-domain interface and the PDP. Such that, as a whole, the BB includes within its boundaries both the NRC and the PDP. If applicant believes that the claimed NRC and the RPL including the PDP are separate entities such that the RPL including the PDP is not within the physical boundaries of the NRC, appropriate claim amendment is suggested in the next response.

At point 4), applicant argues that *"Marchand clearly lacks a first NRC because Marchand's BB functions as a PDP, not an NRC"*.

In response to applicant's argument at point 4), it is noted that there is no requirement for the NRC and the PDP to reside within separate physical entities. Therefore, Marchand's BB functioning as the NRC and the PDP is within the scope of the claims, as discussed fully at point 3).

At point 5), applicant argues that *"the inter-domain interface of Marchand does not permit a second NRC to act as a trusted entity to initiate a dynamic, trusted, policy association between a PDP in a first domain and a PEP in a second domain. Instead, Marchand merely discloses associations between PDPs [BBs] in adjacent domains"*.

In response to applicant's argument at point 5), it is noted that amending the claims to recite "dynamic, trusted, policy association" instead of previously claimed "association" in the context of policy exchange, does not, without more, further define the claimed subject matter. In particular, claims already specified that said first NRC is a "trusted" entity. The added word "dynamic" appears to be completely out of context as there is no interconnection with any other claimed functionality and the specification fails to provide explanation or showing as to how this "dynamic" association is different from any other types of associations known in the art. Therefore, for the purposes of examination and unless such specify and linkage is provided in the claims, the recitation of "a dynamic, trusted, policy association" is interpreted as a typical association between entities, as known in the art.

Regarding the rejection of claims 2, 11-13, and 17-20 under 35 U.S.C. 103(a), applicant's arguments have been fully considered but they are not persuasive.

At point 6), applicant argues that *"Williams does not disclose, teach, or suggest an NRC"*.

In response to applicant's argument at point 6), it is noted that Williams was not relied on to disclose, teach, or suggest an NRC.

At point 7), applicant argues that *"the references of record cannot provide an aggregated view of resources as claimed because they lack the structural connections between the NRC, PDP, and PEP in each domain that provide this view"*.

In response to applicant's argument at point 7), this argument is unpersuasive at least the claimed PDP and PEP are logical entities, as known in the art. Therefore, no structural connections between the NRC, PDP, and PEP can exist, absent the specificity as to which physical devices acts as a PDP and a PEP. As to the newly added limitation of "an aggregated view of resources in the first NRC", this limitation is taught by Marchand, as discussed below in the reasons for rejection.

As to any arguments not specifically addressed, they are the same as those discussed above.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 6, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by

Marchand (US Patent 6,714,515 B1).

As to claim 1, the preamble has been given patentable weight since the claim

body refers back to the preamble. See "the communications network" as lines 1-2.

As to claim 1, Marchand shows an apparatus that establishes services that utilize

policy-enabled resources in a communications network (Fig. 3), comprising:

a first policy enforcement point (PEP) residing on a network element of the

communications network [edge router (11)] (Fig. 1) that performs identification of policy-

enabled resources that are available and allocates requested policy-enabled resources

to services (col. 5 lines 13-17);

a first network resource controller (NRC) within a domain on the communications

network [Bandwidth Broker (BB)] (Fig. 3) that makes requests, from available policy-

enabled resources, of any policy-enabled resources within a first domain required to

establish a particular service (col. 4 lines 17-21), the requests from the available policy-

enabled resources being separate from the identification of the policy-enabled

resources [the functionality of PEP is separate from the functionality of BB]; and

a first resource policy layer (RPL) that establishes the particular service [intra-

domain interface toward an edge router (37)] (col. 4 lines 15-17) and provisions the

policy-enabled resources allocated to the particular service, said first resource policy

layer including a first policy decision point (PDP) [intra-domain interface (37) is part of

BB (31), wherein the BB functions as a PDP of that domain] (col. 5 lines 18-40),

wherein:

said first NRC acts as a trusted entity that initiates a dynamic, trusted, policy

association between said first PEP and said first PDP [BB (31) is in direct

communication with the edge router (11) in that domain] (Fig. 3; col. 4 lines 7-21),

said first PDP provides said first PEP with policies upon establishment of said

dynamic, trusted, policy association between said first PEP and first PDP (col. 5 lines

18-25), and

when said first NRC requires resources from a second domain outside the first

domain, said first NRC signals a request to a second NRC in said second domain [inter-

domain interface (36) enables the BB to communicate with BBs in adjacent domains]

(col. 7 lines 13-18), which acts as the trusted entity that initiates a dynamic, trusted,

policy association between a second PEP in said second domain [edge router in

adjacent domain] and said first PDP [BB in the first domain establishes communication

with the edge router in adjacent domain through the BB in said adjacent domain] (col. 7

lines 13-18), said first PDP providing said second PEP with the policies upon

establishment of said dynamic, trusted, policy association between said second PEP

and said first PDP (col. 7 lines 13-20).

As to claim 6, Marchand shows a second RPL associated with the second

domain [intra-domain interface of an adjacent BB] (Fig. 3) comprising the second PEP

[adjacent domain comprises edge routers belonging to that domain].

As to claim 9, Marchand shows:

identifying, at a first policy enforcement point (PEP) [edge router (11)] (Fig. 1),

policy-enabled resources within a first domain that are available and allocating

requested policy-enabled resources to services (col. 5 lines 13-17);

requesting, from available policy-enabled resources at a first network resource

controller (NRC) [Bandwidth Broker (BB)] (Fig. 3) any policy-enabled resources required

to establish a particular service (col. 4 lines 17-21), the requesting step being separate

from the identifying step [the functionality of PEP is separate from the functionality of

BB];

establishing the particular service with a first resource policy layer (RPL) [intra-

domain interface toward an edge router (37)] (col. 4 lines 15-17); and

provisioning, to the established service, the policy-enabled resources allocated to

the established service, said first resource policy layer including a first policy decision

point (PDP) [intra-domain interface (37) is part of BB (31), wherein the BB functions as

a PDP of that domain] (col. 5 lines 18-40), wherein:

said first NRC acts as a trusted entity that initiates a dynamic, trusted, policy

association between said first PEP and said first PDP [BB (31) is in communication with

the edge router (11) in that domain] (Fig. 3; col. 4 lines 7-21),

said first PDP provides said first PEP with policies upon establishment of said

dynamic, trusted, policy association between said first PEP and said first PDP (col. 5

lines 18-25), and

when said first NRC requires resources from a second domain outside the first

domain, said first NRC signals a request to a second NRC in said second domain [inter-

domain interface (36) enables the BB to communicate with BBs in adjacent domains]

(col. 7 lines 13-18), which acts as the trusted entity that initiates a dynamic, trusted,

policy association between a second PEP in said second domain [edge router in

adjacent domain] and said first PDP [BB in the first domain establishes communication

with the edge router in adjacent domain through the BB in said adjacent domain] (col. 7

lines 13-18), said first PDP providing said second PEP with the policies upon

establishment of said dynamic, trusted, policy association between said second PEP

and said first PDP (col. 7 lines 13-20).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 2, 11-13, and 17-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Marchand in view of Williams et al. (US Patent 7,246,165 B2).

As to claim 2, Marchand shows all the elements except for said first PEP comprising a plurality of virtual PEPs, each virtual PEP being associated to a respective service.

Williams shows that said first PEP [GGSN 16] comprising a plurality of virtual PEPs [virtual GGSNs 20] (Fig. 8), each virtual PEP being associated to a respective service [each virtual GGSN working towards a separate P-CSCF/PCF] (col. 6 line 60 to col. 7 line 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Marchand by having said first PEP comprise a plurality of virtual PEPs, each PEP being associated to a respective service in order to enable decisions to be communicated from multiple PDP nodes to a single PEP without a conflict resulting at the PEP (col. 4 lines 25-29 in Williams).

As to claim 11, Marchand shows all the elements except for virtual PEPs of the first PEP are provisioned to provide resource services.

Williams shows that virtual PEPs [virtual GGSNs 20] (Fig. 8) of the first PEP [GGSN 16] are provisioned to provide resource services [each virtual GGSN working towards a separate P-CSCF/PCF] (col. 6 line 60 to col. 7 line 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Marchand by having virtual PEPs of the first PEP being provisioned to provide resource services in order to enable decisions to be

communicated from multiple PDP nodes to a single PEP without a conflict resulting at

the PEP (col. 4 lines 25-29 in Williams).

As to claim 12, Marchand in view of Williams shows that the virtual PEPs are

provisioned to provide services in said second domain (col. 6 line 60 to col. 7 line 32 in

Williams).

As to claim 13, Marchand in view of Williams shows that said first PEP and said

second PEP are provisioned with the same service by said first PDP (col. 7 lines 12-20

in Marchand).

As to claims 17 and 18, Marchand shows all the elements except for the first

PEP and the second PEP being virtual PEPs created upon request for a particular

service by one of the first NRC and the second NRC.

Williams shows that the first PEP and the second PEP are virtual PEPs [virtual

GGSNs 20] (Fig. 8) that are created upon request for a particular service [v-GGSNs 20

are created when the users are actually connected and the PCF they are working

towards is identified] (col. 7 lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the apparatus and method of Marchand by having the first PEP and

the second PEP being virtual PEPs created upon request for a particular service by one

of the first NRC and the second NRC of Marchand in order to enable decisions to be

communicated from multiple PDP nodes to a single PEP without a conflict resulting at

the PEP (col. 4 lines 25-29 in Williams).

As to claim 19, the preamble has been given patentable weight since the claim

body refers back to the preamble. See "the communications network" as lines 1-2.

As to claim 19, Marchand shows an apparatus that establishes services that

utilize policy-enabled resources in a communications network (Fig. 3), comprising:

a first network resource controller (NRC) within a domain on the communications

network [Bandwidth Broker (BB)] (Fig. 3), said first NRC requesting, from available

policy-enabled resources, of any policy-enabled resources required to establish a

particular service (col. 4 lines 17-21);

a first policy enforcement point (PEP) residing on a network element of the

communications network [edge router (11)] (Fig. 1), said PEP identifying policy-enabled

resources that are available and allocating requested policy-enabled resources to the

particular service (col. 5 lines 13-17);

a resource policy layer (RPL) that establishes the particular service [intra-domain

interface toward an edge router (37)] (col. 4 lines 15-17) and includes a policy decision

point (PDP) [intra-domain interface (37) is part of BB (31), wherein the BB functions as

a PDP of that domain] (col. 5 lines 18-40), wherein the PEP is provided with information

to contact the PDP of the RPL in order to provision the policy-enabled resources

allocated to the particular service (col. 5 lines 18-25) based upon an aggregated view of

resources in the first NRC [BB has an aggregated view of resources as provided by the RNS] (col. 4 lines 17-21; col. 6 lines 26-32).

Marchand does not show that the first PEP is a virtual PEP that is created upon requesting the particular service.

Williams shows that the first PEP is a virtual PEP [virtual GGSN 20] (Fig. 8) that is created upon requesting the particular service [v-GGSN 20 is created when the users are actually connected and the PCF they are working towards is identified] (col. 7 lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Marchand by having the first PEP being a virtual PEP that is created upon requesting the particular service in order to enable decisions to be communicated from multiple PDP nodes to a single PEP without a conflict resulting at the PEP (col. 4 lines 25-29 in Williams).

As to claim 20, Marchand shows:

requesting, from available policy-enabled resources at a first network resource controller (NRC) [Bandwidth Broker (BB)] (Fig. 3), any policy-enabled resources required to establish a particular service (col. 4 lines 17-21);

identifying, at a first policy enforcement point (PEP) [edge router (11)] (Fig. 1), policy-enabled resources that are available and allocating requested policy-enabled resources to the particular service (col. 5 lines 13-17);

providing the PEP with information to contact a policy decision point (PDP) [intra-domain interface (37) is part of BB (31), wherein the BB functions as a PDP of that domain] (col. 5 lines 18-40) of a resource policy layer (RPL) [intra-domain interface toward an edge router (37)] (col. 4 lines 15-17);

establishing the particular service with a first resource policy layer (RPL) [intra-domain interface toward an edge router (37)] (col. 4 lines 15-17); and

provisioning, to the established service, the policy-enabled resources allocated to the particular service (col. 5 lines 18-25) based upon an aggregated view of resources in the first NRC [BB has an aggregated view of resources as provided by the RNS] (col. 4 lines 17-21; col. 6 lines 26-32).

Marchand does not show that the first PEP is a virtual PEP that is created upon requesting the particular service.

Williams shows that the first PEP is a virtual PEP [virtual GGSN 20] (Fig. 8) that is created upon requesting the particular service [v-GGSN 20 is created when the users are actually connected and the PCF they are working towards is identified] (col. 7 lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Marchand by having the first PEP being a virtual PEP that is created upon requesting the particular service in order to enable decisions to be communicated from multiple PDP nodes to a single PEP without a conflict resulting at the PEP (col. 4 lines 25-29 in Williams).

7.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchand

in view of Chan et al. (RFC 3084 COPS Usage for Policy Provisioning (COPS-PR) by

Network Working Group). It is noted that this document was first cited by examiner in

communication dated 05/01/07. See form PTO-892.

As to claim 8, Marchand shows all the elements except for resource capability

information descriptors being used for resource discovery and policy provisioning.

Chan shows that resource capability information descriptors [REQ and DEC

messages] are used for resource discovery and policy provisioning (page 3, COPS

provisioning model, sections 3.1 and 3.2 REQ and DEC, pages 7-9).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the apparatus of Marchand by having resource capability information

descriptors used for resource discovery and policy provisioning in order to utilize COPS

protocol for policy outsourcing and policy provisioning in communication between

entities (col. 5 line 65 to col. 6 line 6 in Marchand).

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to OLEG SURVILLO whose telephone number is

(571)272-9691. The examiner can normally be reached on M-Th 8:30am - 6:00pm; F

8:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Oleg Survillo

Phone: 571-272-9691

/saleh najjar/
Supervisory Patent Examiner, Art Unit 2455